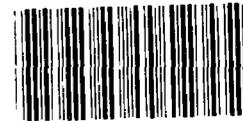


GAO

September 1987

POLYGRAPH TRAINING

DOD Program Meets Standards but Expansion Requires Better Planning



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**National Security and
International Affairs Division**

B-221497

September 18, 1987

The Honorable Sam Nunn
Chairman
Committee on Armed Services
United States Senate

The Honorable John Warner
Ranking Minority Member
Committee on Armed Services
United States Senate

This report is in response to your request that we review the Department of Defense's (DOD's) training program for polygraph examiners and its planned expansion. We did not evaluate the validity of polygraph examinations. The preliminary results of our review were contained in our report, DOD's Training Program for Polygraph Examiners (GAO NSIAD-86-33BR, Dec. 31, 1985). The results of our final review are summarized below and are discussed in detail in appendixes I through V.

The Deputy Under Secretary of Defense for Policy is responsible for providing policy, guidance, and oversight of DOD's polygraph program, including training and research. DOD's polygraph examiners and other federal agencies' examiners are trained at the DOD Polygraph Institute at Fort McClellan, Alabama. The Secretary of the Army is responsible for establishing and managing training programs and for providing and maintaining facilities for the Institute.

Since World War II, DOD has been using the polygraph primarily in connection with criminal investigations. In 1984, DOD proposed expanding its use of polygraph examinations to include screening individuals for access to classified information in special access programs. DOD proposed conducting 10,000 screening examinations annually (requiring an additional 50 examiners), but the Congress limited the number of such examinations to a test program of 3,500 examinations in 1986 and 7,000 in 1987.

**Effectiveness of
Training Program**

We found that DOD's polygraph examiner training program met or exceeded almost all available criteria. The DOD program exceeded the requirements of most other polygraph schools that we compared it with, requiring its students to conduct 50 training polygraph examinations and to serve a minimum 6-month internship. The Polygraph Institute is

accredited by the American Polygraph Association and the Southern Association of Colleges and Schools. Polygraph officials for DOD activities and other federal agencies said that they were pleased with the quality of the instruction.

Expansion of Polygraph Examiner Training Program

Before January 1986, the Institute had 12 examining rooms for its 12-week basic examiner course, which was given on a single shift basis four times a year, giving it a capability of training 48 examiners. In January 1986, DOD expanded the course, the Institute's facilities, and its training capability. The course was expanded to 14 weeks and given three times a year, and a second shift was used when necessary. DOD added 6 examining rooms, purchased new equipment, and increased the faculty. With 18 examining rooms, the Institute is capable of training 54 examiners a year using a single shift, or up to 108 examiners using a double shift. In 1988, DOD plans to begin construction of a new building costing \$1.9 million, with 36 examining rooms, which will enable the Institute to train 108 examiners a year, using only a single shift.

DOD's rationale for the proposed facility includes dedicated space for carrying out its research function. We could not assess the need for space for research because DOD has not yet articulated its research plans.

We analyzed DOD's justification for the expansion to meet training needs, including work load projections and training capabilities, and found that DOD does not need a facility as large as that proposed to train the number of examiners needed to satisfy projected requirements.

Even if DOD's 6-year projection to significantly increase polygraph examinations were approved by the Congress, DOD could attain the necessary level of examiners in about 2 years with current capacity, using double shifts as needed. Once examiner staffing reaches the necessary level, training to meet replacement needs will be well within the existing examining room capacity, using only a single shift.

Program Administration and Management

The polygraph training program is generally well administered, and we found relatively few problems. However, we did find that some areas need improvement:

- DOD's progress has been slow in establishing the polygraph research program authorized by the Congress. Also, the role of the Institute in the research program is unclear.
- The directive governing operation of the Institute does not provide policy on whether or how much the Institute should charge nonfederal students. Although only a few nonfederal students have attended the school, increased student capacity resulting from school expansion may increase nonfederal attendance.
- The Institute is substantially increasing the faculty, which may result in the Institute's having more instructors than necessary. The size of the proposed faculty is based on a student capacity of 36 for each of 3 classes annually. However, due to lower than expected demand for training, none of the classes held since expansion of the Institute has had 36 students, and one class had only 18 students. Furthermore, the use of closed-circuit television equipment to observe and record polygraph training examinations may also permit the monitoring of training examinations by fewer instructors.
- The Institute has more polygraph instruments than it needs. In November 1985, the Institute purchased 80 new polygraph instruments. Even though its current and planned examination rooms can accommodate only one instrument at a time, the Institute purchased 40 each of two types of instruments—2 instruments for each of the proposed 36 examining rooms and 8 spare instruments. These 80 instruments cost about \$385,200. Only the Army preferred one of the two types of instruments.

Recommendations

We recommend that the Secretary of Defense direct the Deputy Under Secretary of Defense for Policy to revise DOD directives to specify the Institute's role in planning, conducting, managing, and evaluating DOD's polygraph research program and establish a policy with respect to reimbursement for training nonfederal examiners at the Institute.

We also recommend that the Secretary of Defense direct the Secretary of the Army to

- defer constructing a new building until DOD more clearly determines polygraph research and training needs;

- assess faculty requirements, resources, and plans to ensure that the number of full-time instructors is maintained at the minimum needed to operate efficiently and effectively; and
- reassess the number and type of polygraph instruments needed by the Institute and make any excess instruments available to other Army, DOD, or federal activities that may be planning to acquire such instruments.

Agency Comments and Our Evaluation

In its overall comments on our report, DOD stated that it concurs with much of our information, but that the report implies, incorrectly, that the planning and management of the polygraph program by DOD has been inadequate. DOD believes that it has made the best projections possible considering the dynamic security environment, the uncertainty of the polygraph program, and the need to plan 3 years in advance. Further, it said that funds for the program would be received in future years, and ample time remains in which to modify programs and budgets, if necessary. (See app. VI.)

While we agree that programs and budgets can be modified, our concerns have near-term relevance because (1) the funds for construction of a new polygraph facility are in the fiscal year 1988 budget now before the Congress and (2) DOD states that it does not plan to defer construction of the new facility. DOD believes that the planned building is justified because the existing building is inadequate to train the numbers of examiners needed and to provide research facilities.

We do not question a requirement for polygraph research space, but we are concerned about the lack of specific guidance and plans regarding the nature and extent of such research. Moreover, DOD's plan for the building appears to be far in excess of DOD's projected training requirements. As discussed in appendix III, DOD has not adequately determined its training needs. We believe that DOD should determine such needs before actually constructing a new building.

DOD acknowledged the need to identify the Institute's research function and to define its policy regarding the training of nonfederal students and agreed that faculty requirements need to be assessed. DOD did not agree that a reassessment is needed for the 80 polygraph instruments purchased as part of the training program expansion. DOD's comments are incorporated, as appropriate, in appendixes III and IV.

We are sending copies of this report to the Chairmen, Senate Committee on Governmental Affairs, House Committee on Government Operations, House Committee on Armed Services, Senate Select Committee on Intelligence, House Permanent Select Committee on Intelligence, and Senate and House Committees on Appropriations; the Secretaries of Defense, the Army, the Navy, and the Air Force; and the Directors of the National Security Agency and the Office of Management and Budget. Copies will be made available to others upon request.

A handwritten signature in black ink that reads "Frank C. Conahan". The signature is written in a cursive style with a large initial "F" and "C".

Frank C. Conahan
Assistant Comptroller General

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Abbreviations

CIA Central Intelligence Agency
DOD Department of Defense
NSA National Security Agency

Introduction

DOD's Polygraph Examiner Training Program

Since World War II, DOD has been using the polygraph primarily in connection with criminal investigations. In 1984, DOD proposed expanding its use of polygraph examinations to include screening individuals for access to classified information in special access programs.¹ DOD believed that this change would require an additional 10,000 polygraph examinations each year. However, the Department of Defense Authorization Act of 1985 allowed DOD to use screening examinations only on a test basis and limited the number of such examinations to 3,500 in fiscal year 1985. Because DOD was slow to implement the test program, the Senate and House Committees on Armed Services authorized DOD in the 1986 authorization act to extend the program through fiscal years 1986 and 1987, but limited the number of annual screening examinations to 3,500 and 7,000, respectively. The limitation did not apply to individuals having access to cryptographic information; detailed or assigned to the Central Intelligence Agency (CIA); employed, detailed, or assigned to the National Security Agency (NSA); or working as experts or consultants under contract with either agency.

DOD components (excluding NSA) reported that they had 161 certified examiners and 27 interns at the end of calendar year 1986, an increase of 28 examiners and 10 interns over the previous year. The components reported that they had conducted about 16,500 examinations during calendar year 1986, an increase of about 1,100 over the previous year.

DOD's Directive 5210.48, "DOD Polygraph Program," governs all DOD polygraph activities. (This directive is implemented by DOD Regulation 5210.48-R, "DOD Polygraph Program.") The directive authorizes the Secretary of the Army to establish and manage training programs for polygraph examiners. In October 1986, DOD issued Directive 5210.78, "DOD Polygraph Institute," to establish the DOD Polygraph Institute as an educational and research facility, assign authority, and prescribe organizational relationships.

In 1975, the Army established a polygraph training facility at its Military Police School at Fort McClellan, Alabama. In August 1985, DOD redesignated the school as the DOD Polygraph Institute. Originally, the Institute offered two courses of instruction: a 12-week basic examiner course given four times a year, limited to 12 students, and a 3-week

¹DOD policy permits the establishment of a special access program when a determination is made that normal management and safeguarding procedures are not sufficient to limit "need-to-know" or access. Special access programs can involve almost any facet of DOD's operations where security of the programs is a primary consideration.

advanced course given once a year to experienced examiners. The curriculum of the basic examiner course consisted of 4 weeks of classroom instruction and 8 weeks of practical experience, during which time each student administered 50 polygraph examinations to Army recruits.

In 1986, the basic course was extended to 14 weeks—6 weeks of classroom instruction and examinations and 8 weeks of practical experience—and was given three times a year. The number of students in each session was increased to 18 as a result of building modifications that added 6 examining rooms. During two of the three sessions in 1986, the Institute added a second shift that increased the enrollment by about 60 percent for those sessions. Table I.1 shows the number of graduates from 1981 through 1986.

Table I.1: Graduates From Basic Polygraph Examiner Course, 1981 Through 1986

Calendar year	Total number of graduates	DOD	Other federal agencies	State and local agencies
1981	37	19	16	2
1982	38	20	18	0
1983	50	27	23	0
1984	44	25	19	0
1985	44	31	12	1
1986	75	46	28	1
Total	288 (100%)	168 (58%)	116 (40%)	4 (2%)

Objectives, Scope, and Methodology

The Senate Armed Services Committee report on the 1985 DOD Authorization Act requested us to review the effectiveness of polygraph examiner training and to make recommendations for upgrade as appropriate.

To review DOD's training program for polygraph examiners, we visited the DOD Polygraph Institute at Fort McClellan, Alabama, and reviewed attendance records, training materials, instructor qualifications, contracts for services and equipment, and building expansion plans.

We also visited two nongovernment polygraph schools and reviewed their curricula, and we reviewed the curricula of four other polygraph schools. The six schools were selected to include large and small schools accredited by the American Polygraph Association.

In addition, we visited the offices of six DOD activities that send students to the Institute—the Army Criminal Investigation Command, the Army

Intelligence and Security Command, the Naval Security and Investigative Command, the Air Force Office of Special Investigations, the Marine Corps Criminal Investigations Division, and the National Security Agency—all in the Washington, D.C., area. At these offices, we reviewed the quality-control procedures used to ensure that polygraph examiners and examinations comply with DOD's standards.

We also visited the offices of three other federal agencies that send students to the Institute—the Federal Bureau of Investigation, the United States Secret Service, and the Drug Enforcement Agency.

We identified accreditation requirements for instructors and curricula set by the Southern Association of Colleges and Schools (Commission on Occupational Education Institutions) and the American Polygraph Association. We also held discussions with nongovernment polygraph experts. We did not evaluate the validity of polygraph examinations. We provided the preliminary results of our review in our December 1985 report, DOD's Training Program for Polygraph Examiners (GAO/NSIAD-86-33BR).

Our review was made in accordance with generally accepted government auditing standards.

Effectiveness of Training Program

We found that DOD's polygraph examiner training program met or exceeded most requirements specified by such sources as

- DOD's training objectives and standards,
- the curricula of other polygraph schools, and
- accreditation standards.

Although we compared DOD's program with the above criteria, we did not evaluate the criteria or the accreditation processes.

The DOD training program met the objectives and standards set forth in DOD's Regulation 5210.48-R and Directive 5210.78. These objectives and standards are designed to ensure that no one will be certified as a polygraph examiner without completing an approved course of instruction. DOD's prescribed examiner instruction includes such subjects as DOD polygraph policies, investigative and interrogation techniques, and basic elements of psychology and physiology. Our observations during visits to the school indicated that the objectives were being met and that standards were being followed during most phases of instruction.

The Institute's curriculum was similar in subject matter and hours of instruction to that of programs of the other six polygraph schools we reviewed. In two areas, DOD's program was more extensive than that of most of the other schools:

- DOD requires each student to conduct 50 training polygraph examinations before graduating. (Only one of the six schools we compared with DOD's school required students to conduct 50 or more polygraph examinations as part of their training.)
- DOD requires a probationary period of 6 to 12 months, during which time the student must conduct at least 25 examinations under the supervision of a certified polygraph examiner. (Three of the other six schools we compared provided for internships.)

The DOD Polygraph Institute meets the accreditation standards of the American Polygraph Association. The association requires a minimum of 260 hours of instruction and prescribes the minimum number of hours for each of 12 subject areas, including 40 hours of instruction on psychological and physiological issues. Before calendar year 1986, the Institute offered only 34 hours of psychology and physiology but, in November 1985, it added a 6-hour course in psychophysiology to meet the association's requirement. The association currently does not require schools to provide practical examinations or an internship program in

order to be accredited. The Institute is also accredited by the Southern Association of Colleges and Schools, Commission on Occupational Education Institutions.

Federal polygraph officials told us that they were pleased with the quality of instruction at the Institute and that Institute graduates had performed very well, with no problems noted.

Expansion of Polygraph Examiner Training Program

DOD is expanding its polygraph examiner training program in two phases so that it can increase its training capacity from 48 to 108 polygraph examiners annually. Phase one has been completed; phase two is to begin in fiscal year 1988.

In phase one, the Army modified the existing school building, erected a temporary building, and purchased new equipment. The modification added 6 more examining rooms and 3 instructor offices, bringing the total number to 18 and 9, respectively. The temporary building provided 3 additional offices and a waiting room for examinees. The total cost of the building modification and temporary building was about \$149,500. The Institute also purchased 80 polygraph instruments costing \$385,200, 20 polygraph desks and 20 chairs costing \$22,900, and 40 video cameras and 20 recorders, monitors, and players and support equipment costing about \$149,000.

In addition, the Institute extended the length of the course from 12 weeks to 14 weeks but is offering the course only three times a year instead of four. On a single-shift basis, the Institute has the capability to graduate 54 student examiners annually. DOD uses a second shift for the 8 weeks of practical training when necessary, which can, if fully applied, increase the Institute's annual training capability to 108 students.

In phase two, DOD plans to construct a new school building, beginning in fiscal year 1988, and to continue increasing the faculty. The new building will contain 36 examining rooms, which will enable the Institute to train 108 students annually without using a second shift. DOD has estimated that the building will cost \$1.9 million. Also, DOD is increasing the size of the faculty—from 7 (before expansion) to 19 (after expansion).

This expansion is based on a 1984 DOD study that recommended training more examiners. Our review of the study and DOD's 1985 and 1986 polygraph program reports to the Congress² indicated that some of the justifications supporting training requirements may not be based on accurate information.

1984 DOD Study

In November 1984, a DOD study concurred with a June 1984 DOD determination that 50 additional examiners would be needed to conduct the

²The Defense Authorization Acts of 1985 and 1986 require DOD to submit annual reports on its polygraph program to the Congress.

planned 10,000 screening examinations annually. The report stated that DOD would need to train a total of 213 new examiners, including the 50 additional DOD examiners, over the next 3 years because

- DOD polygraph activities were staffed as much as 20 percent below authorized levels;
- the annual attrition rate of polygraph examiners was about 25 percent; and
- other federal agencies were making increased training requests.

Given the school's capacity at that time to train 48 examiners a year (144 in 3 years), the report predicted a shortfall of 69 examiners (213 less 144) at the end of 3 years. The report did not show how the study team arrived at the specific requirement for 213 examiners.

We found that the report's support for 213 new examiners was inaccurate. Specifically:

- DOD polygraph activities were staffed an average of only about 8 percent below their authorized levels. (Only one activity was staffed about 23 percent below its authorized level.)
- The 25-percent annual attrition rate of DOD examiners was significantly overstated. The attrition rate for 1983 was about 10 percent; for 1984, 9 percent; and for 1985, 10 percent.
- Other federal agencies had not increased their use of the school. In 1983, 23 non-DOD federal students attended the school. In 1984, the number declined to 19 and, in 1985, to 12. This decline does not appear to have been due to the school's lack of capacity because in 1984 and 1985 the school had fewer students than it could have accommodated. (During 1984 and 1985, the school had 44 students each year, 4 below its annual capacity of 48.)

1985 DOD Polygraph Program Report

In December 1985, DOD reported to the Armed Services Committees on its needs and plans for expanding the polygraph examiner training program. The report stated that DOD had asked its activities involved in the polygraph program "to identify their immediate requirements for examiners based upon anticipated participation in the program already authorized." The responding activities indicated a need for 73 additional examiners. The Army Intelligence and Security Command reported a need for 28 additional polygraph examiners. However, we found that its requirement was significantly overstated because it was based largely on programs that the Congress has not authorized. As a result, for

example, the Army Command sent only 9 students to the Institute in 1986, even though the Army Command said in December 1985 that it had an immediate need for 28 additional examiners. Therefore, DOD should not have used the above estimate in its justification for construction of a new facility.

The report said that the Institute could not use double shifts on a long-term basis because it would be extremely taxing on the faculty and administration of the school, on examinees after normal working hours, and on the existing training equipment and facilities—which already needed upgrading.

We did not independently evaluate the double-shift issue. However, Army representatives told us that for the first double-shift session, some instructors preferred the second shift because of fewer distractions during the session and the availability of daylight hours for other activities. A senior Fort McClellan official told us that the only significant training problem identified was the inconvenience of feeding examinees after normal working hours.

Also, the report's concern that double shifts would tax existing equipment did not recognize the 80 new polygraph instruments purchased in November 1985.

1986 DOD Polygraph Program Report

In its December 1986 report to the Armed Services Committees, DOD estimated its needs for examiners based on a planned level of screening and other examinations that it wanted the Congress to authorize. The report estimated that DOD would conduct 18,000 screening examinations in 1988, increasing to about 36,200 in 1993.³ DOD's projected examinations include 10,000 test-program screening examinations during each year of the 6-year period ending in 1993, and an increasing number of screening examinations to be done outside of the test program. The report projects about 8,000 screening examinations in 1988 for individuals assigned to NSA from other DOD units and for individuals with cryptographic access, and shows that figure increasing each year during the 6-year period, reaching about 26,200 in 1993. The DOD report said that these numbers of examinations justified training an estimated 244 examiners during the 3-year period 1987 through 1989.

³These estimates do not include other types of examinations, such as examinations in criminal investigations, which DOD is already doing.

We examined supporting data for two of the nine DOD polygraph activities identified in the report because requirements of the two appeared excessive and accounted for about 55 percent of the 244 new examiners needed. The report showed that the Air Force and Army Intelligence and Security Command needed basic examiner training for 56 and 83 examiners, respectively. The Air Force request was based on a work load forecast that is higher than currently authorized, and assumed that a congressional limitation on the number of its examinations in fiscal year 1987 would be lifted. Although the DOD report does not include the higher Air Force work load forecast, it does include the examiners needed to perform that work load. As a result, the report overstates the Air Force's examiner needs by about 40 examiners if the limitation is not lifted. The DOD report also shows the Air Force forecasting a need to train 69 additional examiners for the 3-year period 1990 through 1992, which would increase its examiner force by about 25 percent. According to an Air Force official, the polygraph group's estimate has not been validated. About half of the 69 additional examiners the Air Force forecasted are for replacements because of attrition.

We also found that the Army Intelligence and Security Command's estimate included a need to train 28 examiners in 1987—which, allowing for attrition, would give it about 47 examiners to conduct the planned level of 4,575 examinations in 1988. As a result, each examiner would be conducting an average of less than 100 examinations that year, or less than half an examination per workday. Since about 80 to 85 percent of the Command's forecasted examinations are screening examinations, the Command appears to be requesting training for at least 20 more students than it needs. Our analysis is based on DOD's assumption that an examiner will conduct one screening examination a day, or about 200 a year. (DOD had told congressional committees in June 1984 that it planned to hire 50 additional examiners to conduct 10,000 screening examinations annually, and DOD officials told us that the assumption is still valid.)

We estimated the cumulative number of examiners who could be trained by 1990 under the current training program, allowing for attrition and for examiners being assigned to NSA and to nonscreening examination duties, i.e., criminal examinations and supervisory and quality control positions. Our analysis indicated that, by the end of 1989, DOD's examiner force would be sufficient to handle the increased work load of screening examinations for 1990 and later years. Some examiners are assigned only screening examinations, while others may perform all

types of examinations; however, assuming that DOD will have the equivalent of about 224 screening examiners in 1990, those examiners will be capable of conducting about 44,800 examinations (200 per examiner). DOD's 1986 polygraph report forecasts 26,325 screening examinations in 1990. Examiner training after 1989 will be needed primarily to fill positions vacated through attrition. Our analysis also indicated that the existing training capacity is sufficient to fill attrition needs at significantly higher levels than now envisioned.

Agency Comments and Our Evaluation

In commenting on our report, DOD disagreed with our recommendation that it defer construction of a new polygraph facility. It partially agreed with our observations on training requirements.

DOD stated that we did not consider the other purposes for which the new facility is planned, including 6 examining rooms for polygraph research and additional capacity for non-DOD federal polygraph training, and did not adequately consider the impact of future polygraph examination requirements that the Congress may later approve. Our analysis of DOD justifications for the planned polygraph facility considered the other purposes cited by DOD in several sets of justifications from 1984 through 1987, and none convincingly support the proposed construction:

- We do not question a requirement for polygraph research space, but, as discussed in appendix IV, we are concerned about the lack of specific guidance and plans regarding the nature and extent of such research. DOD's statement that 6 examining rooms are needed for research and other purposes does not appear to recognize that all of the Institute's examining rooms would be available about half of each year (during the 25 weeks that the rooms are not used for training).
- Recent levels of participation by non-DOD federal agencies have been relatively small. In the basic course sessions that began in January and May 1987, non-DOD federal agencies had seven and four students, respectively, which is half the number of such students attending similar sessions in 1986. Two of the agencies DOD identified as having expanded their participation have not established training requirements.
- Our analyses showed that existing capacity could support all of DOD's cited examination requirements, even if it is assumed that the Congress approves an increase in examinations.

DOD also stated that the \$1.9-million cost of the new building should be viewed as a very small insurance premium when compared with the

enormous economic cost of even one spy. Our review did not evaluate the validity of polygraph examinations or their usefulness in identifying spies.

Based on DOD's comments on the double-shift issue, we have revised our report and clarified that a senior official at Fort McClellan rather than GAO identified the feeding issue as the only significant training problem during the second shift. In any event, the second shift should be a temporary problem, as DOD's projected polygraph examination work load should not require the use of double shifts on a long-term basis. DOD can attain the level of staffing projected for 1990 by the end of 1989, and new examiners would then be needed primarily to fill positions vacated through attrition. Furthermore, when a double shift is needed, it is only for the 8 weeks of practical examinations. During the 6 weeks of classroom instruction, all students attend classes on a single-shift basis.

DOD identified a number of problems with the existing space, including the small size of instructor offices, insufficient toilet facilities, and general inadequacy of the building. DOD also cited an April 1987 study report which identified problems with the present building. We did not evaluate whether the existing facilities may eventually need to be replaced. We are concerned, however, that the size and configuration of the planned facility is larger than requirements dictate.

Program Administration and Management

Although we found only minor administrative weaknesses, which DOD has corrected, three management areas still need attention:

- the directive on the operation of the DOD Polygraph Institute,
- the size of the faculty, and
- the purchase of polygraph instruments for training.

Operation of the DOD Polygraph Institute

On October 17, 1986, with the issue of Directive 5210.78, "DOD Polygraph Institute," DOD established the Institute as an educational and research facility. However, this directive does not provide adequate guidance for the Institute's research function or provide for reimbursement to the government for the training of nonfederal students.

Research Function Needs Guidance

In November 1985, the Congress authorized DOD to spend \$590,000 on polygraph research to "identify the extent of personnel security screening testing needed to produce results that may be considered reliable and credible." DOD's progress in implementing this program has been slow. As of December 31, 1986, DOD had committed \$99,500 of the \$590,000 for a joint research project with the United States Secret Service and had transferred \$190,500 to other basic research in personnel security (not oriented to polygraph research). DOD said that the \$190,500 would be made available for polygraph research for 2 years, starting in 1988.

The DOD directive does not state by whom or how research will be managed. The directive states that the Institute shall conduct, coordinate, and sponsor polygraph research and development consistent with DOD's Polygraph Regulation. The DOD regulation provides that (1) the heads of DOD components can authorize the acquisition and use of experimental equipment to conduct research to determine the equipment's operational characteristics and reliability and (2) the Deputy Under Secretary of Defense for Policy may approve DOD components' requests to conduct studies or research involving the use of the polygraph.

The directive requires the Institute's director to ensure that research results are incorporated into the Institute's curriculum and are provided to the Deputy Under Secretary of Defense for Policy with recommendations for policy action. The directive does not provide clear guidance on the Institute's role in planning, conducting, managing, and evaluating polygraph research. In October 1986, DOD selected a research director, who reported to the Institute in January 1987.

In commenting on our report, DOD stated that lack of a research facility contributed to slow research progress. (Only \$99,500 of \$590,000 for research for 1986 and 1987 had been committed as of December 31, 1986.) DOD also said that it was unreasonable to expect the new research director to relocate to the school, receive training in government-contracting procedures, recruit his staff, and design and launch a research program all during the remainder of fiscal year 1987. Because DOD plans to start construction of the new building in 1988, we believe that DOD should also plan how research funds authorized for 1986 and 1987 should be used. We found that DOD delayed filling the research director's position for over a year because of its desire to first select a director for the Institute.

DOD also stated that the DOD polygraph regulation is more specific than the DOD directive concerning polygraph research. However, the regulation, as noted earlier, does not provide general guidance on the Institute's research function. We believe that the October 1986 DOD Polygraph Institute directive should have clearly defined the general parameters of the Institute's research function. DOD stated that in April 1987 it had directed the Institute to develop standard operating procedures specifically addressing the research function, and that it will consider incorporating the procedures in the DOD directive, if necessary.

No Reimbursement for Nonfederal Students

The Army estimates that in fiscal year 1987 the cost of training a student in the basic 14-week course will be \$26,000 and \$3,000 per student for the 3-week refresher or advanced course. During 1986, the Institute had three state and local government students—two in the 3-week advanced course and one in the 14-week basic course. We were told that the three students attended the Institute on a nonreimbursable basis and that more state and local governments have inquired about sending students in 1987, also on a nonreimbursable basis.

We found that no policy exists on whether or how much the Institute should charge nonfederal students. In commenting on our report, DOD said that nonfederal students are never accepted at the expense of federal training quotas and that the incremental cost is not as much as that portrayed in our report. Nevertheless, DOD stated that, within 90 days, it will direct the Institute to establish formal policy and procedures for nonfederal students.

We believe that DOD needs a clear policy concerning whether the school is authorized to train nonfederal students. Thus far in calendar year

1987, two nonfederal students have attended the basic course, and two have attended the advanced course.

Size of Faculty

DOD's faculty expansion plan does not appear justified. Before the expansion of the Institute's basic training course in January 1986, the classes were planned with 12 students, and the school was staffed with 6 instructors and a supervisory instructor (2 students per instructor). Each of the 6 instructors had an office (with observation windows) between 2 examining rooms so that instructors could simultaneously observe 2 students conducting training examinations during the 8-week practical phase of the course.

According to the Army's September 1985 expansion plan, 19 full-time instructors from DOD components are needed to continue the Institute's practice of providing a student-to-instructor ratio of 2 to 1, and also to provide for a supervisory instructor. Most of the instructors are not used for instruction during the 6-week lecture phase of training but are used for the 8-week practical phase of the course. In addition, when classes have fewer than 36 students, as happened during all three sessions in 1986 and the first session in 1987, the services of all 19 full-time instructors are not needed in any phase.

Even though the Institute's student-to-instructor ratio enables each instructor to monitor two students, we observed that instructors were not monitoring most of the training examinations during our visits to the Institute. Also, the closed-circuit television equipment used to observe and record examinations may enable instructors to monitor more examinations, resulting in a need for fewer instructors for monitoring purposes. (Some DOD polygraph offices use, or plan to use, closed-circuit television to monitor examinations as a quality control measure.)

In commenting on our report, DOD disagreed with our position that its faculty expansion plan did not appear justified. DOD believes that its requirements are correct, saying that the Army's Training and Doctrine Command's Management Engineering Activity had validated the required number of instructor positions. However, the representative from that activity who had performed the evaluation told us that he had validated the program of instruction, not the student-teacher ratio.

DOD further stated that our observations that instructors were not monitoring most of the training examinations must have represented an abnormal situation, and cited examples of the long working hours which

would be necessary if instructors watched videotapes of every polygraph examination from beginning to end. We do not believe that DOD's comment is correct. Our observations during two visits to the Institute, our interviews with the Institute Director and his instructors, and our examination of programs of instruction and other documents all indicated that instructor monitoring of students' practical examinations was periodic rather than full-time.

Purchase of Polygraph Instruments

In November 1985, the Institute bought 80 new polygraph instruments of two types (40 of each type), which cost about \$385,200, so as to have one of each type instrument for each of its proposed 36 examining rooms (and 8 spares).

We believe that DOD's purchase of such a large number of two types of instruments was unjustified. Except for the Army, DOD activities and other federal agencies generally preferred to use only one type of instrument. As of December 31, 1985, the federal government had about 400 polygraph instruments (excluding the 80 mentioned above), about 84 percent of which were of the preferred type. Considering that the Institute has 18 examining rooms and that its ultimate plans include 36 such rooms, the purchase of 80 instruments seems excessive to its needs. Also, at the time the Institute bought the instruments, the planned construction that would double the number of examining rooms to 36 was still 3 years away. (The Congress has not yet authorized the construction.)

In commenting on our report, DOD did not agree that it should reassess the number of polygraph instruments the Institute needs, stating that it had already done so. DOD said that it will periodically make a review to ensure that the instruments are fully utilized. DOD acknowledged that the purchase of 80 instruments was based on its plans for 36 examining rooms at some time in the future, but states that the 1985 purchase of two types of instruments was based on a survey that showed agencies were using an equal number of each type. DOD could not provide us with a copy of the survey.

It is doubtful that the Institute can fully utilize 80 polygraph instruments in either the existing or proposed facility because the maximum of 18 to 36 students can only use one instrument at a time, and the examination rooms can only accommodate one instrument at a time. The 1984 DOD study, which was the basis for the proposed facility (with 36

examining rooms), recommended funding for only 40 instruments, half the number actually purchased.

Status of Previous GAO Findings

In our December 1985 report, we discussed

- the need for construction of a new school building,
- the authorization of polygraph examinations for training purposes,
- the impact of the rapid expansion of polygraph training, and
- the relationship of Project Seven Screens to the congressionally authorized polygraph test program.

The need for construction of a new school building is discussed in appendix III. The current status of the other issues is discussed below.

Authorization of Polygraph Examinations for Training Purposes

We pointed out that DOD Directive 5210.48, which authorized the use of polygraph examinations for 10 purposes, did not specifically authorize examinations given to Army recruits by students attending the polygraph school. Directive 5210.78 now authorizes such examinations.

We also reported that some of the Army recruits who were the subjects of the training examinations were not informed in advance that they were participating in a training exercise. Directive 5210.78 now provides for the protection of the rights and privacy of individuals subjected to polygraph examinations. We verified that Army recruits were being properly advised of the voluntary nature of the training examinations and were signing the appropriate waiver and consent forms.

Finally, after we pointed out that the Institute was providing students with instructional material on personnel screening techniques that contained objectionable life-style questions, DOD revised its instructional material. The new material, which has been approved by the Deputy Under Secretary of Defense for Policy, no longer contains any of the objectionable life-style questions.

Impact of Rapid Expansion

The impact of a rapid expansion of the Institute's basic examiner course to accommodate 108 students annually (an increase of about 60 students) is not yet clear. On the one hand, expansion appears likely to have an impact on ongoing polygraph operations of DOD polygraph activities because (1) they will be required to provide 12 examiners to fill new instructor positions at the school, and (2) during a required 6-month internship, Institute graduates will have to be supervised by certified examiners. Both actions appeared likely to reduce the number of examinations that DOD can conduct. On the other hand, DOD activities

reported conducting 16,500 examinations during calendar year 1986, an increase of about 7 percent over the previous period.

The Deputy Secretary of Defense's August 1985 memorandum, establishing the DOD Polygraph Institute and making the Secretary of the Army responsible for polygraph training, provides for the DOD activities authorized to conduct polygraph examinations to furnish instructors. Previously, the Institute's six instructors were warrant officers from the Army's Criminal Investigation Command. The number of instructors that each polygraph activity is to provide was agreed to by the activity and the Army. However, some activities had not supplied all the instructors agreed upon.

The full impact of a surge of examiner interns on productivity, if any, could not be identified at the time of our review because the first class in 1986, with 19 DOD students, was not completed until mid-April, and the students still had to serve a 6-month internship. However, at one location where there were six interns and seven certified examiners, we were told that, because of the need for one-on-one supervision, an examiner and intern were able to jointly conduct only one examination daily.

Project Seven Screens and the Test Program

Before December 1984, the DOD polygraph directive (5210.48) did not authorize personnel screening examinations. However, in November 1981, the Deputy Under Secretary of Defense for Policy authorized the Air Force to initiate a project using screening examinations. The project, known as Seven Screens, became operational in May 1982 and, according to Air Force officials, involved about 2,500 polygraph examinations annually for special access programs.

We were advised that, when the congressionally authorized test program was extended to fiscal year 1986 because of a lack of activity in 1985, the Senate Armed Services Committee was aware of the existence of Project Seven Screens but not of its magnitude.

Some of the Air Force Project Seven Screens examinations were included in the 1986 test program. Of the 3,500 examinations authorized for the test program in fiscal year 1986, the Air Force project accounted for 1,159.

Comments From the Department of Defense



POLICY

THE UNDER SECRETARY OF DEFENSE

WASHINGTON, D. C. 20301-2000

18 MAY 1987

In reply refer to:
I-10004/87

Mr. Frank C. Conahan
Assistant Comptroller General
National Security and International
Affairs Division
U.S. General Accounting Office
Washington, D.C. 20548

Dear Mr. Conahan:

This is the Department of Defense (DoD) response to the General Accounting Office (GAO) Draft Report entitled, "POLYGRAPH TRAINING: Better Planning Should Precede Further DoD Program Expansion," dated March 19, 1987 (GAO Code 391543), OSD Case 6913-A.

The DoD basically concurs with much of the information set forth in the draft report. Unfortunately, however, the proposed title and several statements within the report tend to draw the reader to an incorrect conclusion that the planning and management of the polygraph program by the Department has been inadequate. This is unsubstantiated. The Department has made the best projections possible considering the dynamic security environment of recent years, the year-to-year uncertainty of the program and the fact that all resource and budgetary projections had to be established three years prior to the planned action. Moreover, any criticism of the DoD planning has to be mooted by the fact that the actual money for these programs remains in out-year budgets. Accordingly, ample time remains in which to modify programs and budgets, if necessary, once the Congress establishes the future of the DoD Polygraph Program during this year's appropriations process.

According to the draft report, both the House and Senate Committees on Armed Services requested that the GAO review "the Department of Defense (DoD) training program for polygraph examiners." The GAO found that "DoD's polygraph examiner training met or exceeded almost all available criteria", and that "the polygraph training program is generally well administered....". Beyond these favorable findings, the report focuses on rather peripheral issues. However, despite the highly favorable "bottom line" to the report, the title results in a totally unrelated conclusion.

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The Department is sensitive to the fact that the GAO could not address all of the changes and events of the last few years that have impacted upon the growth and evolution of the DoD Polygraph Program. Accordingly, pertinent information has been incorporated into the enclosed detailed DoD comments, which should assist the GAO in reviewing its recommendations and conclusions.

The Department appreciates the opportunity to comment on the draft report.

Sincerely,



Craig Alderman, Jr.
Deputy

Enclosures
As Stated

DOD COMMENTS ON

(GAO CODE 391543) OSD CASE 6913-A

"POLYGRAPH TRAINING: BETTER PLANNING SHOULD PRECEDE
FURTHER DOD PROGRAM EXPANSION"

FINDING A: Expansion of Polygraph Examiner Training Program. Since World War II the DoD has been using the polygraph primarily in connection with criminal investigations however, the GAO reported that in 1984, the DoD proposed expanding its use of polygraph examinations to include screening individuals for access to classified information in special access programs. While the DoD proposed conducting 10,000 screening examinations annually (requiring an additional 50 examiners), the GAO reported that the Congress limited the number of such examinations to a test program of 3,500 examinations in 1986, and 7,000 in 1987. The GAO found that the DoD is expanding its polygraph examiner training program in two phases, so it can increase its training capacity from 48 to 108 polygraph examiners annually. Specifically, the GAO reported that in phase one, which has been completed, the Army modified the existing school building, erected a temporary building, purchased new equipment, extended the length of the course from 12 weeks to 14 weeks, increased the faculty, and instituted a second shift, when necessary. The GAO further found that in 1988 (phase two), the DoD plans to begin construction of a new building costing \$1.9 million, which will enable the institute to train 108 examiners each year without a second shift. The GAO concluded, however, that the construction may be premature since it is based on the DoD proposal to conduct more than 10,000 screening examinations each year, which the Congress has not yet authorized. (p. 2, Letter; p.8, Appendix I; pp. 16-17, Appendix III/GAO Draft Report)

DoD Response: Partially concur. The GAO conclusion that "construction may be premature since it is based on the DoD proposal to conduct more than 10,000 screening examinations each year, which the Congress has not yet authorized," is only partially correct. The GAO did not consider the other purposes for which the new facility is planned. The construction of a new facility is based not only on the proposed screening examinations, but also on the requirement to conduct polygraph research. There is currently no space available for the conduct of this research. Additionally, the Institute also provides training for non-DoD Federal polygraph programs, as no other federal training site exists. Some non-DoD programs are expanding and the number of agencies with polygraph programs is also growing. For example, the U.S. Secret Service has begun an ambitious program of pre-employment screening; the Internal Revenue Service has requested seven training quotas for this year alone; and both

Enclosure

Now on pp. 2, 7, and 12.

the Immigration and Naturalization Service and the Tennessee Valley Authority have contacted the Institute regarding training quotas for polygraph programs they are establishing. Since these and all other Federal examiners are to be trained at Government expense, it would appear prudent to conduct the training at an already established Federal training center.

The GAO cites the estimated cost of a new building to be \$1.9 million. This cost should be viewed from an overall security perspective as the Department considers it to be a very small insurance premium indeed when compared to the enormous economic cost to our country of even one spy like Walker, Whitworth or Pollard. Information obtained through professional debriefings of recently convicted espionage agents, as reported by DoD in its FY 1986 Report to Congress on the polygraph, vividly illustrates the deterrent effect of the polygraph. Also, the significant contribution of the polygraph in ferreting out espionage activities among members of the Marine Security Guards serves to further illustrate the importance of adequate polygraph training.

It should also be noted that the actual funding for the new building is in out year budgets while the future of the polygraph in DoD will be decided within weeks. Accordingly, adjustments, plus or minus, can be made well in advance of the funding commitment. It should further be recognized that budgeting had to occur based upon available data at least three years prior to the desired construction date.

FINDING B: Basis For Expansion of Polygraph Examiner Training Program. The GAO reported that in November 1984, a DoD study stated that (1) the DoD would need to train a total of 213 new examiners, including the 50 additional DoD examiners, over the next 3 years, and (2) given the school capacity at the time to train 48 examiners a year (144 in 3 years), predicted a shortfall of 69 examiners (213 less 144), at the end of 3 years. The GAO found, however, that the report bases supporting 213 examiners were inaccurate because:

- at the time of the 1984 report, the DoD polygraph activities were staffed an average of only about 8 percent below their authorized level versus the 20 percent cited in the report;
- the reported 25 percent annual attrition rate of DoD examiners was significantly overstated; and
- no documentation existed to show that agencies had increased training requests as alleged in the report.

The GAO observed that in August 1985, the Army prepared a justification for the proposed new polygraph training facility stating that the increased training requirement is the, "direct result of the congressionally mandated action in the 1986 Defense Authorization Bill to expand DoD capability to conduct 10,500 National Security polygraph examinations in 1986 and 1987 with requirement capability to conduct 10,000 plus examinations thereafter." The GAO found, however, that the Congress had not authorized the 10,000 plus examinations in later years. The GAO also found that a 1985 DoD polygraph program report significantly overstated requirements because they were based largely on programs that had not been authorized. The GAO reported that the 1985 report also stated the Institute could not use double shifts on a long-term basis as it would be extremely taxing on the faculty and administration; on examinees after normal working hours; and on the existing training equipment and facilities. The GAO found, however, that for the first two double-shift sessions (1) some instructors preferred the second shift and (2) the only significant training problem was the inconvenience of feeding examinees after normal working hours. The GAO also found that in a December 1986 report to the Armed Services Committees, the DoD again overstated the need for examiners because it based requirements on a planned level of screening examinations that the Congress had not yet authorized. The GAO concluded that the DoD polygraph construction was planned without accurate information on future examiner training requirements. (pp. 17-22, Appendix III/GAO Draft Report)

Now on pp. 13-16.

DoD Response: Partially concur. Although the GAO is correct in pointing out that the projected training needs were partially based on the need to conduct polygraph examinations in "later years" that were not yet authorized by Congress, the fact that these examinations have not yet been authorized does not mean that Congress will not authorize them. It is far more reasonable to expect these examinations will be authorized by the Congress as the DoD has already negotiated with the appropriate committees the language that will quite probably be used in the authorization bills. Moreover, the draft GAO report merely mentions that congressional limitations do not apply to several categories of polygraph examinations, including cryptographic access examinations, which have already been authorized. Not only does the cryptographic program alone represent a potential for 20,000 examinations annually, but these examinations will be extremely resource intensive and expensive as, for the most part, persons with such access tend to be concentrated in small groups that are remotely located. Unfortunately, compromise of such persons also represents one of the highest priorities of hostile intelligence. Therefore, it is forecast that this program alone will cause a dramatic and disproportionate increase in the number of examiners to be trained within the DoD.

The draft GAO report, in de-emphasizing the necessity for a new building, states that one class at the Institute had only 18 students. The report omitted the fact that the National Security Agency (NSA) course was training ten additional students at the same time. Those ten students would have otherwise been attending the course at the Institute. The GAO also cited the total number of graduates in 1986 to be 75 persons, thus omitting the significance of the ten students at the NSA school. This number constitutes a misrepresentation of the demand curve submitted to the Congress by more than 13%.

In de-emphasizing the need for a new facility, the GAO appears to dismiss the problems of overcrowding and doubleshifting with the statement -- some instructors "preferred" the second shift. This statement reflects what some instructors chose between the lesser of two evils. Some preferred the second shift because instruction is made easier when the building is less crowded. At night there are no staff personnel present, administrative interruptions and visitors are less problematic, and the noise level is significantly reduced. This "preference" should not be misinterpreted to mean that night shift is preferred over a normal single shift situation. The additional cost to the Government of double-shifting should also be considered. Civilian employees must be paid an extra 10% of their salary after 6:00 p.m. The night shift at the Institute does not conclude until 11:00 p.m. The utility costs for the building are also doubled because lights, heat and water are used on both shifts. It is also unreasonable to expect the Director and others to supervise their subordinates during the 17-18 hours in which the Institute is operative.

The GAO views the only significant training problem to be that of feeding examinees after normal working hours. The DoD disagrees. The burden on trainees is indeed significant. It is the view of the DoD that the conditions are taxing on the faculty and students alike. Double-shifting eliminates the opportunity for students to practice after duty hours except on Sundays and the Saturdays that are not scheduled as regular training days. This practice training is essential to gain proficiency. Also, remedial training for students is severely hampered by the non-availability of classrooms and offices except during the hours of the designated shift.

In addition to the facts previously addressed, it should be noted that the current instructor offices are only 5'8" x 8'6". Each of these small cubicles will be occupied by at least two, and sometimes three instructors, in addition to a normal size desk, a cabinet measuring 5'3" x 5'2", two 19" TV monitors and other electronic equipment. An analogy would be all this equipment and two or three adults in a space the size of an

average home bathroom. The Government recommended size for office space is 115-130 square feet per person. These offices are approximately 48 square feet. Another example of current logistical problems is when between 40-50 males are in a building with a bathroom containing only two toilets. The Government recognized maximum capacity in this area is one toilet for 15 people. The building cannot even be cleaned without disrupting class, since class is in session continuously.

The GAO report states that modification of the existing facility added six examination rooms and three instructor "offices." The report omits the observation that these "additions" caused the Institute to "lose" a classroom, two crime scenario rooms, and storage space for supplies and equipment. A temporary annex (relocatable building) is just that -- temporary pending construction of the facility. The temporary building now in use cannot be approved for permanent installation and is now scheduled for removal in March 1989.

It is the DoD position that the current facility, which was originally a smoke generator repair shop, is inadequate for current needs. It seems unlikely that the training requirements will be reduced to 1983 levels. However, even if that were to occur, the requirement for scientifically acceptable research remains. An adequate training and research facility is a must if Government polygraph programs are to remain viable.

The Director of the Army Staff (DAS) directed that an independent study group, comprised of Ph.Ds who are noted authorities in the fields of polygraph and academia, evaluate the adequacy of the Institute. The DAS Study Group published their report in April 1987 (which was subsequent to this GAO Draft Report) wherein they strongly recommended that additional facilities be built. The Study Group found that the current facilities were inadequate and cited numerous examples. They also stated that there are still "six major unresolved problems with the present building: (1) only 18 students can conduct examinations at any given time; (2) there is inadequate office and administrative space; (3) the noise level in the corridors is too high during the day, disrupting the polygraph examinations; (4) the main lecture classroom is inadequate; (5) the library requires upgrading; and (6) it contains no research laboratory."

FINDING C: Effectiveness of Training Program. The GAO found that the DoD polygraph examiner training program met or exceeded most requirements specified by such sources as:

- the DoD training objectives and standards;
- the curricula of other polygraph schools; and
- accreditation standards.

As an example, the GAO cited, that the DoD polygraph Institute meets the accreditation standards of the American Polygraph Institute. The GAO noted, however, that while it compared the DoD program to the above criteria, it did not evaluate the criteria or the accreditation processes. (pp. 13-15, Appendix II/GAO Draft Report)

Now on pp 10 and 11

DoD Response: Concur. The GAO does not, however, adequately document the academic rigor and superb training offered during the course. For example, it should be added that the course has recently been evaluated by an independent entity, the American Council on Education (ACE), which recommends that graduates be granted up to nine semester hours of master level credits in the new ACE Guide. The excellent training record and quality of training are further highlighted in the aforementioned report by the DAS Study Group. The GAO auditors also stated during a previous meeting that the Institute was "number one" among the seven schools that the GAO reviewed. The addition of this information in the GAO report would give Congress a more comprehensive understanding of the quality of DoD polygraph training.

FINDING D: Operation Of The DoD Polygraph Institute. The GAO found that, while the Congress authorized the DoD to spend \$590,000 on polygraph research, the DoD has made little progress. As an example, the GAO noted that as of December 31, 1986, the DoD had only committed \$99,500 of the \$590,000 for a joint research project with the U.S. Secret Service and had transferred \$190,500 to other basic research in personnel security (not oriented to polygraph research). The GAO observed that the issuance of Directive 5210.78, "DoD Polygraph Institute," on October 17, 1986, established the Institute as an educational and research facility. The GAO found, however, that this directive does not provide adequate guidance for the Institute research function or provide for reimbursement to the Government for the training of nonfederal students. As an example, the GAO noted that the DoD directive does not state by whom or how research will be managed and does not provide clear guidance on the role of the Institute in planning, conducting, managing, and evaluating polygraph research. As another example, the GAO noted that while the cost of training a student was estimated at over \$26,000, the directive does not provide policy on whether or how much the Institute should charge nonfederal students. The GAO concluded that the directive on the operation of the DoD Polygraph Institute needs management attention. (pp. 23-25, Appendix IV/GAO Draft Report)

Now on pp. 18-20

DoD Response: Partially concur. It should be recognized, however, that no research facility exists, which contributes, and will continue to contribute, to slow research progress.

The \$190,500 to which GAO refers to as being transferred to other research is actually earmarked in the research and development fund of the Under Secretary of Defense for Policy and will be provided to the Defense Polygraph Institute (DPI) in FY 1988 as "fresh" (2 year) research money on top of research money already budgeted for that year. In FY 1988, the DoD polygraph research coordinator will also be authorized two research assistants. It simply was not reasonable to expect the research coordinator to relocate to Anniston, Alabama, receive training in Government contracting procedures, begin recruiting for his staff, design and launch the DoD polygraph research program and effectively contract out \$.5 million dollars all during the remainder of FY 1987. Therefore, rather than waste or lose any badly needed research money, a swap of the R&D money was effected that simply defers the \$190,500 until FY 1988, at which time the DPI will be able to effectively apply it toward research. The availability of a greater sum of money in FY 1988 may enable the DoD to embark upon more intensive research at an earlier stage of the research program than initially forecast.

The GAO remarks that DoD Directive 5210.78 "does not provide adequate guidance for the Institute research function." It is the Department's position that DoD Directives are designed to provide broad, general guidance, and that specific guidelines should be addressed in such documents as Army Regulations, Command Directives, doctrinal literature, and Standard Operating Procedures (SOP). The cited Directive states that the Institute shall "conduct, coordinate, and sponsor polygraph research and development consistent with DoD 5210.48-R." The cited regulation is more specific concerning DoD polygraph research. The Institute Directive also requires the establishment of a Polygraph Advisory Committee which will review the research program. It is the position of DoD that during the Institute's metamorphosis from an Army training school to a government research entity, any language which is more restrictive or specific could have an adverse impact. However, on 17 April 1987, the DoD directed that the Institute develop an SOP which will more specifically address the research function.

The GAO also notes that the Institute Directive does not specifically provide for reimbursement to the Government for the training of nonfederal students. Each instance of such training is currently handled on a case-by-case basis. The GAO report states that the cost of training a student was over \$26,000, and goes on to add that three nonfederal students were trained, thus inferring that the cost was in excess of \$78,000. The report omitted the fact that the advanced course, which was attended by two of the three students mentioned, costs approximately \$3,000, not the \$26,000 figure which was cited. Additionally, the nonfederal students are never accepted at the expense of Federal training quotas. The students were all law enforcement personnel, and the requests for waiver of tuition costs are normally submitted by members of

Congress. Moreover, if the training capacity of a given class is 36 and only 35 students are scheduled, it actually costs little more to train a nonfederal student as that 36th student. However, the ramifications of restricted budgets are expected to impact on the current procedures utilized for granting and denying waivers of tuition. Therefore, within 90 days, the DoD will direct that a formal policy be developed by the DPI Quota Manager, which will firmly establish the procedures to be followed in this regard.

FINDING E: Size Of The Faculty. The GAO reported that, according to the Army September 1985 expansion plan, 19 fulltime instructors from DoD components are needed to continue the Institute practice of providing a student-to-instructor ratio of 2 to 1, and for a supervisory instructor. The GAO found that most of the instructors are not used for instruction during the 6-week lecture phase of training but are used for the 8-week practical phase of the course. In addition, the GAO found that when classes have fewer than 36 students, as happened during all three sessions in 1986 and the first session in 1987, the services of all 19 full-time instructors are not needed in any phase. The GAO observed that even though the Institute student-to-instructor ratio provides a capability for each instructor to monitor two students, instructors were not monitoring most of the training examinations. The GAO further observed that the closed circuit television equipment used to observe and record examinations may enable instructors to monitor more examinations resulting in a need for fewer instructors for monitoring purposes. The GAO concluded, therefore, that the DoD faculty expansion plan does not appear justified. (pp. 25-26, Appendix IV/GAO Draft Report)

DoD Response: Partially concur. While some of the facts are accurate, the DoD disagrees with the conclusion as the number of faculty positions required have already been validated by the TRADOC Management Engineering Activity.

The GAO asserts that instructors are not used during the academic phase of training and, therefore, fewer full-time instructors are needed. The GAO has not recognized the fact that this time can and is being spent by instructors in a variety of necessary and required activities, such as (1) reviewing and updating training materials; (2) conducting live examinations for the respective agencies to maintain proficiency and certification; (3) assisting in research projects planned during the academic phases of training; (4) providing instruction for advanced and refresher courses which overlap with basic courses during the academic phase; and (5) teaching outside blocks of instruction.

Now on pp. 20 and 21

The GAO report states, "we observed that instructors were not monitoring most of the training examinations during our visits to the Institute." While this may have occurred, it is not the "normal" monitoring status of instructor personnel. During the GAO visits, instructors were simultaneously performing the required functions of personnel who had not yet been hired, such as: secretarial personnel, supply specialists, maintenance technicians, administrative personnel, operations NCO, research personnel, instructors not yet assigned and the director. In addition, the DAS Study Group and two other entities were also inspecting the Institute at the time. They were conducting interviews with instructor personnel and students, which sometimes precluded the instructors from monitoring students.

The GAO also assumes that fewer instructors are needed to monitor students since closed circuit television equipment has been acquired. This statement disregards the necessity to view each student tape individually, with each tape lasting a minimum of three hours and sometimes as much as six hours or more. If each instructor were required to view four students instead of two, each instructor would then have a minimum 12 hour work day in viewing alone (three would require a minimum of nine hours). The required paperwork and other duties would be done in addition to this viewing time. It would also be impossible to make "on the spot" corrections during the practice examinations when a student makes an error. Thus, bad habits could be formed because of repetition if corrections were postponed.

FINDING F: Purchase of Polygraph Instruments. The GAO reported that in November 1985, the Institute bought 80 new polygraph instruments of two types costing about \$385,200, so as to have one of each type of instrument for each of the proposed 36 students (8 spares). The GAO found that except for the Army, the DoD activities and other Federal agencies generally preferred to use only one of the two types of instruments. The GAO noted that at the beginning of 1986, the Federal Government had about 400 polygraph instruments (including the 80 mentioned above), about 84 percent of which were of the preferred type. The GAO concluded, therefore, that considering the Institute has 18 examining rooms, and its ultimate plans including 36 such rooms, the purchase of 80 instruments is clearly excessive to its needs. (pp. 26-27, Appendix IV/GAO Draft Report)

DoD Response: Partially concur. The rationale for this purchase was based on figures acquired by surveying the various user agencies concerning the type(s) of instruments they utilized between 1983 and 1985. At that time, there was an approximate 50-50 split between the two types. Although one brand does appear to enjoy a preference in 1987, this is normal in the polygraph

Now on pp. 21 and 22.

community with the pendulum of preference swinging from one manufacturer to the other every few years. Moreover, it is important to teach our students the operation of both types of instruments, since they will undoubtedly use both types at some time during their polygraph careers. The Program of Instruction sets forth the various blocks of classroom instruction which pertain to each type of instrument. The total number of hours is 36.5 and is provided during the academic phase of the course. This time is in addition to actual application during the practical exercise phase. It is the Department's position that a focus on one type of instrument at a time is essential for effective instruction. In addition, since most agencies purchase polygraph instruments by contracting with the lowest bidder, it cannot be predetermined which of the two types of instruments the agency will purchase next. The instruments are also used by the instructor staff while teaching outside blocks of instruction, during demonstrations of the polygraph provided to outside organizations, and during the live polygraph examinations conducted by instructor personnel. It should be emphasized, however, that the 80 instruments were ordered based on our estimates and plans for 36 examining rooms. As the GAO is aware, the Congress subsequently prevented the planned expansion of the DoD polygraph programs.

FINDING G: Status Of Previous GAO Findings. The GAO noted that in a December 1985 report it pointed out that (1) DoD Directive 5210.48 did not specifically authorize examinations given to Army recruits by students attending the polygraph school, (2) some of the Army recruits who were subjects of the training examinations were not informed in advance that they were participating in a training exercise, and (3) the Institute was providing students with instructional material on personnel screening techniques which contained objectionable lifestyle questions. The GAO concluded, however, that DoD Directive 5210.78 now authorizes such training cited in (1) above and provides for the protection of the rights and privacy of individuals subjected to polygraph examinations. In addition, the GAO concluded that new material (approved by the Under Secretary of Defense for Policy) no longer contains any of the objectionable lifestyle questions. (p. 29, Appendix V/GAO Draft Report)

DoD Response: Concur

FINDING H: Impact of Rapid Expansion. The GAO observed that the expansion appears likely to have an impact on ongoing polygraph operations of DoD polygraph activities because (1) they will be required to provide 12 examiners to fill new instructor positions at the school, and (2) during a required 6-month internship, Institute graduates will have to be supervised by certified examiners. The GAO concluded that both actions appear likely to reduce the number of examinations that the DoD can conduct. The GAO reported that DoD activities reported conducting 16,500

Now on p. 23.

examinations during calendar year 1986, an increase of about seven percent over the previous period. The GAO noted that the Deputy Secretary of Defense August 1985 memorandum establishing the DoD Polygraph Institute provides for the DoD activities authorized to conduct polygraph examinations to furnish instructors, with the number of instructors that each polygraph activity is to provide agreed to by the activity and the Army. The GAO found that, as of October 1986, the National Security Agency, the Army Intelligence and Security Command, and the Air Force had not supplied all the instructors agreed upon. The GAO further found that the full impact of a surge of examiner internship on productivity, if any, could not be identified because the first class in 1986 was not completed until mid-April, and the students still had to serve a 6-month internship. The GAO concluded that the impact of a rapid expansion of the Institute basic examiner course to accommodate 108 students annually is not yet clear. (pp. 29-30, Appendix V/GAO Draft Report)

Now on pp. 23 and 24.

DoD Response: Concur. It should be noted, however, that the Department has taken aggressive action to insure the positions at the Institute are covered by the responsible DoD component.

FINDING I: Project Seven Screens And The Test Program. The GAO reported that before December 1984, the DoD polygraph directive did not authorize personnel screening examinations; however, in November 1981, the Deputy Under Secretary of Defense for Policy authorized the Air Force to initiate a project using screening examinations. The Project Seven Screens, became operational in May 1982, and the GAO learned that it involved about 2,500 polygraph examinations annually for special access programs. The GAO further found that Air Force Project Seven Screens examinations were included in the 1986 test program and of the 3,500 authorized examinations, the Air Force project accounted for 1,159. The GAO observed that when the congressionally authorized test program was extended to FY 1986, the Senate Armed Services Committee was aware of the existence of Project Seven Screens, but not of its magnitude. (p. 31, Appendix V/GAO Draft Report)

Now on pp. 24 and 25.

DoD Response: Concur

RECOMMENDATIONS

RECOMMENDATION 1: The GAO recommended that the Secretary of Defense direct the Deputy Under Secretary of Defense for Policy to defer constructing a new building until DoD more clearly determines Government training needs. (p. 4, Letter/GAO Draft Report)

Now on p. 4.

DoD Response: Nonconcur. The DoD views the current facility to be totally inadequate for training much less the added mission of polygraph research. The Department stands by its established workload projections, which are being addressed by the Congress in this year's authorization process. The Department also has substantial lead time to adjust the requirements should the Congress decide to scale down the DoD program. However, polygraph research has been afforded a high priority by both the Congress and the DoD and would be extremely difficult to orchestrate without the new facility because there are currently no facilities for research. In fact, an assessment of the blueprint design for the new facility by the DoD polygraph research coordinator has surfaced serious deficiencies in space allocations for research. Accordingly, a space reallocation design has been accomplished which, in essence, establishes the following priorities:

a. Thirty examination rooms dedicated for basic, refresher, and advanced training courses with priority, at this time, for basic training.

b. Six examination rooms designated with the following priorities:

- 1) basic research;
- 2) surge overflow for the basic training class;
- 3) overflow when two or more classes overlap or operate simultaneously; and
- 4) as available, for live examinations conducted in support of Fort McClellan and temporary offices for visiting polygraphers, researchers, etc.

It is our position that the lack of proper research facilities is in and of itself justification to move forward with this rather modest construction project. Moreover, if the Congress does change its position, the Department would make available any excess space to the military police school, which has a continuing need for such space.

RECOMMENDATION 2: The GAO recommended that the Secretary of Defense direct the Deputy Under Secretary of Defense for Policy to revise DoD directives to specify the Institute's role in planning, conducting, managing and evaluating the DoD polygraph research program and establish a policy with respect to reimbursement for training nonfederal examiners at the Institute. (p. 5, Letter/GAO Draft Report)

DoD Response: Partially concur. During the metamorphosis of the Institute, the DoD has directed that standard operating procedures be developed relative to the conduct of polygraph research within the DoD. The Department will continue to monitor the procedures being developed by the Institute concerning research

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functions with the view of incorporating them in the DoD Directive, if necessary. Additionally, a formal policy will be developed and issued within 90 days regarding the training of nonfederal students at the polygraph institute.

RECOMMENDATION 3: The GAO recommended that the Secretary of Defense direct the Secretary of the Army to assess faculty requirements, resources, and plans to ensure that the number of full-time instructors is maintained at the minimum needed to operate efficiently and effectively. (p. 5, Letter/GAO Draft Report)

Now on p. 4

DoD Response: Concur. This has already been accomplished. The Deputy Secretary of Defense has sent a letter to all DoD components outlining their responsibilities for providing instructors to the Institute on a "fair-share" basis. In addition, the Director for Counterintelligence and Investigative Programs, Office of the Deputy Under Secretary of Defense for Policy, followed with a recent letter to the major components reinforcing the need to fully staff and maintain the Institute. Moreover, an evaluation by the TRADOC Management Engineering Activity has validated the required number of instructor positions. This area will continue to receive the close scrutiny of both the Department and the components due to constricting resources. Adjustments will be made when and if necessary.

RECOMMENDATION 4: The GAO recommended that the Secretary of Defense direct the Secretary of the Army to reassess the number and type of polygraph instruments needed by the Institute and make any excess instruments available to other Army, DoD, or federal activities that may be planning to acquire such instruments. (p. 5, Letter/GAO Draft Report)

Now on p. 4.

DoD Response: Nonconcur. The DoD has already reassessed the rationale employed by the DPI in purchasing the number and types of instruments that were acquired. There are only two equipment manufacturers and the Department does not intend to demonstrate a preference. Training is equally distributed among the two instruments and there is a need for each trainee to concentrate on only one instrument at a time during some 36 hours of classroom instruction. Accordingly, it is the DoD position that the DPI exercised prudent management in the purchase, particularly considering all requirements in addition to the basic class. The Department will, however, periodically review this matter to insure the instruments are fully utilized.

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